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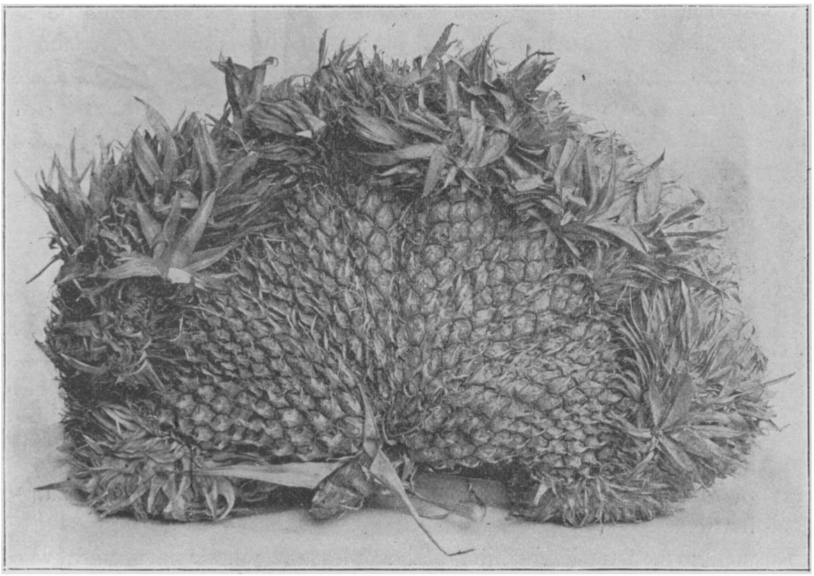
COCKSCOMB FASCIATION OF PINEAPPLES

BY JOHN W. HARSHBERGER, PH.D.

A remarkable case of fasciation, probably one of the most striking of that teratological condition known to botanists, is one recently found by the writer in the pineapple, *Ananassa sativa.* The fruit of the pineapple plant is a multiple one, formed from many spicately arranged flowers and their bracts consolidated into one mass upon a succulent, fleshy axis. Ordinarily, only a single, conical fruit with its tuft of green, sterile, bract leaves is borne at the summit of the plant, surrounded at the base by the large, leathery, awl-pointed, spirally-arranged, sword-shaped, vegetative leaves. In teratological specimens, shipped to Philadelphia from Jamaica and displayed in the windows of prominent fruiterers, several pineapples produced on a single plant were found united by congenital growth into a fan-like mass. One of the most



striking of these, presented to the writer by Henry Hallowell & Son, was an almost completely open fan, the individual fruits being arranged in a semicircular manner, as shown in the accompanying figure, reproduced from a photograph of one of the largest fasciated specimens. These fasciated pineapples, known to the trade as " Freak " or " Cockscomb Pineapples," seem to be not at all uncommon. Henry Hallowell & Son had at least a dozen or more specimens, besides the one presented to the writer. The smallest of these consisted of two united pineapples, and the largest (twenty inches across, twelve inches high) showed the union of a dozen or more. The fasciated fruits in nearly all instances were arranged regularly side by side; in some illustrations, however, one or two fruits crowded out of the fan-shaped mass during growth projected in several directions, so that the combined mass consisted of an irregularly disposed row of united pineapples. A stem, one to two inches in diameter, common to all of the united fruits, was present in all the cases examined.

Apparently from a count of the more concave, flat side of the monstrosity shown in the plate, there were ten pineapples united together, as outlined by the deep grooves which ran between them. On the other, more convex face, twelve united masses were discernible, all arising from a common stalk one and a half inches in diameter, with a number of lanceolate, involucral leaves about six to eight inches long at the base of the clustered fruits. A count, however, of the tufts of crown leaves would indicate, if each fruit in the bunch had only one crown tuft, that many more fruits than ten or twelve were aggregated together. The coronal tufts of leaves form a continuous growth over the entire top of the fasciation, as shown in the plate. It was difficult to count the tufts therefore, on account of their massing together, but the most careful count possible under the circumstances gave fifty tufts as the result of the enumeration. It seemed hardly likely, however, that the fasciated mass consisted of that many fruits, and to decide the matter a section was made through the monstrosity by means of a saw, and such a section showed twenty distinct upward projecting divisions of the fleshy fasciation. Whether each division represented a fruit, it was not possible to determine by the examination.

The monstrosity, which had a pleasant pineapple aroma, was succulent, but very fibrous, with many fibres radiating from the common stalk and running to the semicircular summit of the edible mass. The flavor was quite good, although the specimens tried lacked the juiciness of the finer Ripley pines, and reminded one of the taste of the inferior grades of Cowboy pineapples raised in Jamaica and consumed by the negroes of that island.

The ripened individual flowers of the fasciated pineapples were apparently normal, consisting of the succulent inferior ovary, succulent sepals and fleshy base of the subtending bract. The succulent, diamond-shaped floral masses were flattened laterally, or became mere vestigial structures, wherever they had been pressed together by the union of the pineapples of which the monstrosity was composed.

One is tempted to theorize with these unique specimens taken into consideration, for fasciation appears in plants subjected to conditions of nourishment above the normal, occasionally as a result of disease or injury. Did these factors influence the production of fasciated pineapples in Jamaica ? Who can say!